

Listing of Claims:

1-83. (Cancelled)

84. (Previously presented) A method for producing end-derivatized single-wall carbon nanotubes comprising the steps of:

- a) providing a plurality of single-wall carbon nanotubes; and
- b) reacting the single-wall carbon nanotubes with a compound that provides at least one substituent on at least one of the ends of at least a portion of the single-wall carbon nanotubes.

85. (Previously presented) The method of claim 84 wherein the at least one substituent is selected from the group consisting of alkyl; acyl; aryl; aralkyl; halogen; substituted thiol; unsubstituted thiol; substituted amino; unsubstituted amino; hydroxy; and OR', wherein R' is selected from the group consisting of alkyl, acyl, aryl, aralkyl, halogen, substituted thiol; unsubstituted thiol; substituted amino; unsubstituted amino, a linear carbon chain and a cyclic carbon chain and wherein the linear carbon chain, the cyclic carbon chain, or both are (a) optionally interrupted with one or more heteroatom and (b) optionally substituted with one or more =O, or =S, hydroxy, an aminoalkyl group, an amino acid, or a peptide of 2-8 amino acids.

86-90. (Cancelled)

91. (Previously presented) A method for producing end-derivatized single-wall carbon nanotubes comprising the steps of:

- a) providing a plurality of single-wall carbon nanotubes, wherein the carbon nanotubes comprise at least about 100 carbon atoms; and
- b) reacting the single-wall carbon nanotubes with a compound that provides at least one substituent on at least one of the ends of at least a portion of the single-wall carbon nanotubes.

92. (Previously presented) The method of claim 91 wherein the at least one substituent is selected from the group consisting of alkyl; acyl; aryl; aralkyl; halogen; substituted thiol; unsubstituted thiol; substituted amino; unsubstituted amino; hydroxy; and OR', wherein R' is selected from the group consisting of alkyl, acyl, aryl, aralkyl, halogen, substituted thiol; unsubstituted thiol; substituted amino; unsubstituted amino, a linear carbon chain and a cyclic carbon chain and wherein the linear carbon chain, the cyclic carbon chain, or both are (a) optionally interrupted with one or more heteroatom and (b) optionally substituted with one or more =O, or =S, hydroxy, an aminoalkyl group, an amino acid, or a peptide of 2-8 amino acids.

93. (Cancelled)

94. (Previously presented) The method of claim 84, wherein the ends of the single-wall carbon nanotubes are open, closed, or a combination thereof.

95. (Previously presented) The method of claim 91, wherein the ends of the single-wall carbon nanotubes are open, closed, or a combination thereof.